

Ogg Theora video, Firefox 3.1, Archive.org & Wikimedia support

Internet Archive
Dec 2008

tracey jaquith
archive.org

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New <video> tag coming!

example:

```
<video poster="http://www.archive.org/images/logo.jpg"  
  controls="true" autoplay="true"  
  src="http://www.archive.org/download/to-SF/toSF.ogv">  
  for firefox betans  
</video>
```

Trivial video embedding - may revolutionize video!

Firefox 3.1 beta released Oct1
Full release by ~EOY2008

Ogg Theora video

Thought to be most free,
unencumbered video codec

Libraries/tools available from:

- xiph.org (libtheora)
- annodex.net/software/liboggz/
- [ffmpeg](http://ffmpeg.org)
- [flowplayer](http://flowplayer.org)

archive.org

mission to allow free uploading,
storage, and serving for all

- 1 million books
- 400K audio programs and concerts
- 100 billion web pages

The Internet Archive, a 501(c)(3) non-profit, is building a digital library of Internet sites and other cultural artifacts in digital form. Like a paper library, we provide free access to researchers, historians, scholars, and the general public.

archive.org will rederive movies

We have news:

- Democracy Now!
- US congress (w/ metavid)

games, speed runs
cartoons/animations
feature films



and more!

night of the living dead



how we make ogv fast/reliably

High Level:

- use ffmpeg to turn any video to "rawvideo"
- pipe its output to "another" ffmpeg to turn the video to "yuv4mpegpipe"
- pipe its output to the libtheora tool
- for videos with audio, ffmpeg create a vorbis audio .ogg file.
- add tasty metadata (with liboggz utils).
- combine the video and audio ogg files to an .ogv output!

tikirobot.net/wp/author/tracey-pooh
(or just google "ogv tracey" B-)

<code>

(set to input)

```
ffmpeg -an -dcinterlace -s 400x300 -r 20.00 -i CapeCodMarsh.avi  
-vcodec rawvideo -pix_fmt yuv420p -f rawvideo -  
| ffmpeg -an -f rawvideo -s 400x300 -r 20.00 -i - -f yuv4mpegpipe -  
| libtheora-1.0/encoder_example --video-rate-target 512k  
- -o tmp.ogv;.
```

pipes = nice
on 2+
cores

```
ffmpeg -i CapeCodMarsh.avi -vn -acodec vorbis  
-ac 2 -ab 128k -ar 44100 audio.ogg;
```

```
oggz-comment audio.ogg -o audio2.ogg TITLE="Cape Cod Marsh"  
ARTIST="Tracey Jaquith"  
LICENSE="http://creativecommons.org/licenses/publicdomain/"  
DATE="2004" ORGANIZATION="Dumb Bunny Productions"  
LOCATION="http://www.archive.org/details/CapeCodMarsh";
```

```
oggzmerge tmp.ogv audio2.ogg -o CapeCodMarsh.ogv;
```

archive.org is

adding metadata to .ogv (and h.264 .mp4)

jumping into streams — oggzchqp (and
mod_h264_streaming with lighttpd)

timecodes, standards for accessing:

- annodex.net/Ti2/draft-plciffier-temporal-fragments-03.html
- archive.org/download/to-SF/toSF_512kb.mp4?t=74.5

serving search results in JSON, CSV, XML

serving item metadata in JSON

h.264 mp4 creation

```
ffmpeg -i CapeCodMarsh.avi -b 512k -s 320x240 -vcodec h264 -r  
20.00 -bf 0 -level 13 -qmax 35 -maxrate 768k -title "Cape Cod Marsh"  
- http://www.archive.org/details/CapeCodMarsh" -year "2004"  
-comment  
"license:http://creativecommons.org/licenses/publicdomain/"  
-author "Tracey Jaquith" -pass 1 -an cape.mp4;
```

```
[same args above...] -pass 2 -acodec aac -ab 64k -ac 2 cape.mp4;
```

mp4creator -optimize cape.mp4

pluses:

- *plays on iphone
- *plays in flash plugin
- *works with lighttpd
mod_h264_streaming

minuses:

- *longer to make
- *possible licensing / IP
issues

metavid / wiki

metavid has a *great* web player that:

- will natively play .ogv if codec

- will use flowplayer if flash/h.264

- can play MPEG

- will use chopping/seeking for snippets

- can jump from clip format A to clip format B

- is now being incorporated into wikimedia

goals

make CC licensed (and otherwise)
videos available

enable online transclusion and
editing/mashups with wikimedia and
metavid

rederive nearly 200,000 movies!









